UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,944	04/14/2006	Noriyuki Yamamoto	273142US6PCT	5936

22850 7590 11/25/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
PHAM, MICHAEL	
ART UNIT	**PAPER NUMBER**
2167	

NOTIFICATION DATE	DELIVERY MODE
11/25/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/538,944	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	MICHAEL PHAM	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *6/22/09*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,14-23 and 25-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,14-23 and 25-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/17/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Status

1. Claims 1-12, 14-23, and 25-37 are pending.

2. Claims 1-12, 14-23, and 25-37 have been examined.

Priority

3. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e).

Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Specification

4. Prior objections to the title are withdrawn.

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

6. Prior objection to 'storage means for' is withdrawn.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 1 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material". Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer"

Claim 1 recites "An information-processing apparatus". However, claim 1 fails to contain any computer hardware that is used to implement the apparatus so as to realize its functionality. The claimed elements of the body of claim 1 are merely an abstract idea and are being processed without any links to a practical result in the technology arts and without any computer hardware manipulation. Contrary to arguments made by some Applicants, use of the word "apparatus" does not inherently mean that the claim is directed to a machine. Only if at

least one of the claimed elements of the apparatus is a physical part of a device can the system as claimed constitute part of a device or a combination of devices to be a machine within the meaning of 101. While the claim recites a storage means, the storage means is not clearly defined, and further Applicant's provide further evidence on page 201, stating that "each series of processes described previously can also be carried out by execution of software".

9. Regarding claims 12 these claims recite a computer-readable medium. In the absence of any modifying disclosure of this limitation in the specification the terms 'computer-readable medium' is limited to statutory embodiments only such that the claims clearly fall under the terms of 35 U.S.C. 101.

10. Rejections directed towards claim 13 are withdrawn due to cancellation.

11. Claim 14-21 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material". Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer"

Claim14 recites “An information-processing apparatus”. However, claim 14 fails to contain any computer hardware that is used to implement the apparatus so as to realize its functionality. The claimed elements of the body of claim 14 are merely an abstract idea and are being processed without any links to a practical result in the technology arts and without any computer hardware manipulation. Contrary to arguments made by some Applicants, use of the word “apparatus” does not inherently mean that the claim is directed to a machine. Only if at least one of the claimed elements of the apparatus is a physical part of a device can the system as claimed constitute part of a device or a combination of devices to be a machine within the meaning of 101. While the claim recites a storage means, the storage means is not clearly defined and can be construed to be a mere program or data structure, and further Applicant’s provide further evidence on page 201, stating that "each series of processes described previously can also be carried out by execution of software".

12. Regarding claims 23 this claim recites a computer-readable medium. In the absence of any modifying disclosure of this limitation in the specification the terms ‘computer-readable medium' is limited to statutory embodiments only such that the claims clearly fall under the terms of 35 U.S.C. 101.

13. Rejections directed towards claim 24 are withdrawn due to cancellation.

14. Claim 25 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material". Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer"

Claim 25 recites "An information-processing system". However, claim 25 fails to contain any computer hardware that is used to implement the apparatus so as to realize its functionality. The claimed elements of the body of claim 25 are merely an abstract idea and are being processed without any links to a practical result in the technology arts and without any computer hardware manipulation. Contrary to arguments made by some Applicants, use of the word "system" does not inherently mean that the claim is directed to a machine. Only if at least one of the claimed elements of the apparatus is a physical part of a device can the system as claimed constitute part of a device or a combination of devices to be a machine within the meaning of 101. While the claim recites a storage means, the storage means is not clearly

defined and can be construed to be a mere program or data structure, and further Applicant's provide further evidence on page 201, stating that "each series of processes described previously can also be carried out by execution of software".

15. Claim 26-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106:

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 U.S.C. 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best functional descriptive material per se.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material". Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer"

Claim 26 recites "An information-processing apparatus". However, claim 26 fails to contain any computer hardware that is used to implement the apparatus so as to realize its functionality. The claimed elements of the body of claim 26 are merely an abstract idea and are being processed without any links to a practical result in the technology arts and without any computer hardware manipulation. Contrary to arguments made by some Applicants, use of the word "apparatus" does not inherently mean that the claim is directed to a machine. Only if at least one of the claimed elements of the apparatus is a physical part of a device can the system as

claimed constitute part of a device or a combination of devices to be a machine within the meaning of 101. While the claim recites a storage means, the storage means is not clearly defined and can be construed to be a mere program or data structure, and further Applicant's provide further evidence on page 201, stating that "each series of processes described previously can also be carried out by execution of software".

16. Regarding claims 37 this claim recites a computer-readable recording medium. In the absence of any modifying disclosure of this limitation in the specification the terms ' computer-readable recording medium ' is limited to statutory embodiments only such that the claims clearly fall under the terms of 35 U.S.C. 101.

17. Rejections directed towards claim 38 are withdrawn due to cancellation.

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

19. Claims 1-12, 14-23, and 25-37 are rejected under 35 U.S.C. 102(b) as being anticipated EP1107595 by Tadao Yoshida.et. al. (hereafter Yoshida).

Claim 1 :

In regards to "An information-processing apparatus for generating attribute information of a content on the basis of information on said content, comprising:", Yoshida discloses the following claimed limitations:

"acquisition means for acquiring" (figure 1 element 10 and 3) "said information" (0052, attribute) "on said content;" (0052, program)

"attribute-information generation means for" (figure 1) "generating said attribute information" (page 6, vector A) "including a plurality of items" (0007, page 2 line 25-26 elements; page 6 vector A: a, a2, a3..) "on the basis of information acquired by said acquisition means as said information" (0007 page 2 line 25-26, attribute information) "on said content; and" (0007 page 2 line 25-26, attribute information assigned to digital contents)

"first storage means for" (page 6, vector) "storing first weight information" (0052, page 6, intensities) "for said items" (0052 page 6 line 3, elements) "of said attribute information" (page 6 vector A) "generated by said attribute-information generation means,"(figure 1) "said first weight information" (0054, intensities) "prescribing a degree of contribution given by each of said items to" (0052, intensities of program attibutes) "for computing a degree of similarity" (page 8 equation 5) "between said attribute information" (vector A) "and predetermined favorite information of the a." (page 6 Vector S)

Claim 2 :

Yoshida further discloses "An information-processing apparatus according to claim 1, further comprising transmission means for transmitting said attribute information generated by said attribute-information generation means." (figure 1 elements 2, 3, 10, 12)

Claim 3 :

Yoshida further discloses "An information-processing apparatus according to claim 2, wherein said transmission means extracts a piece of first weight information" (figure 1, broadcasting station; page 8, vector A) "matching a condition (page 8 paragraphs 0073-0077, cases 1-3) "of a content" (0074-0077, program)"from pieces of first weight information stored in said first storage means" (page 8 equation 4, ,elements 3, 1, .1, etc..)"and transmits said extracted piece of first weight information by associating said extracted piece of first weight information with said attribute information generated by said attribute-information generation means(0052, intensities of program attributes).

Claim 4 :

Yoshida further discloses "An information-processing apparatus according to claim 3, wherein said condition of a content is the genre of said content." (0054, drama, sports, etc.)

Claim 5 :

Yoshida further discloses "An information-processing apparatus according to claim 1, further comprising extraction means for extracting predetermined information from information acquired by said acquisition means as said information on said content," (0057, a1-a50) "wherein

said attribute-information generation means converts said predetermined information extracted by said extraction means into a vector for each plurality of said items in order to generate said attribute information." (0057 and equation 2, vector S)

Claim 6 :

Yoshida further discloses "An information-processing apparatus according to claim 1, wherein said attribute-information generation means selects information expressed in terms of words" (0054, movie drama, sports, etc.) "from said information on said content" (0049, attribute information) "as an object of an analysis" (page 6, vector A) "and generates said attribute information on the basis of a result of said analysis." (page 6, intensities)

Claim 7 :

Yoshida further discloses "An information-processing apparatus according to claim 5, wherein said attribute-information generation means generates said attribute information by appending numerical values each representing a frequency or a weight to said information expressed in terms of words." (0054)

Claim 8 :

Yoshida further discloses "An information-processing apparatus according to claim 1, further comprising: second storage means for storing information comprising a plurality of said items as said predetermined favorite information of said user; and" (page 6 vector S; 0056, user tastes) "recommendation-information generation means" (figure 1 element 3) "for generating

recommendation information revealing a content matching a favorite of said user by computing a degree of similarity" (page 8, equation 5) "between said favorite information stored in said second storage means" (page 6, vector S) "and said attribute information generated by said attribute-information generation means for each of said items." (page 6, vector A)

Claim 9 :

Yoshida further discloses "An information-processing apparatus according to claim 8, wherein said recommendation-information generation means generates recommendation information through comparison of said attribute information with said favorite information by using said first weight information stored in said first storage means." (0074-0077)

Claim 10 :

Yoshida further discloses "An information-processing apparatus according to claim 8, further comprising:

operation-history acquisition means for acquiring a history of operations carried out by said user;" (0057, user selected 50 replayed programs…averaging attribute vectors a1-a50)

"favorite-information generation means for generating favorite information of said user on the basis of a history acquired by said operation-history acquisition means as said history of operations carried out by said user; and" (0057, vector S can be generated for each selected program by averaging attribute vectors A1-A50)

"weight-information generation means for" (page 7, equation 3) "generating second weight information" (page 6, equation 2, vector S) "on the basis of said favorite information

generated by said favorite-information generation means, wherein:" (page 6, equation 1, vector A)

"said second weight information prescribes a degree of contribution given by each of a plurality of said items" (0056, intensities of attribute attributes indicating the user's taste) "to computation of a degree of similarity" (page 8 equation 5) "between said attribute information" (page 6, vector A) "and said favorite information of said user;" (page 6, vector S)

"said recommendation-information generation means generates recommendation information" (0074-0077) "through comparison of said attribute information with said favorite information by using said second weight information generated by said weight-information generation means." (page 8, equation 5)

Claim 11 :

In regards to "An information-processing method for an information-processing apparatus which generates attribute information of a content on the basis of information on said content, said information-processing method comprising:", Yoshida discloses the following claimed limitations:

"an acquisition step of acquiring" (figure 1 element 10 and 3) "said information" (0052, attribute) "on said content;" (0052, program)

"an attribute-information generation step of" (figure 1) "generating said attribute information" (page 6 vector A) "including a plurality of items" (0007, page 2 lines 25-26, elements; page 6 vector A) "on the basis of information acquired in a process carried out at said

acquisition step" (0007 page 2 line 25-26, attribute information) "as said information on said content;" (0007 page 2 line 25-26, attribute information assigned to digital contents)

"an extraction step of extracting" (page 8, operation in equation 5 is performed) "weight information prescribing a degree of contribution given by each of said items" (page 8 equation 4) "for computing of a degree of similarity" (page 8 equation 5) "between said attribute information" (page 6 vector A) "and predetermined favorite information of a user " (page 6 vector S) "on the basis of information acquired in said process carried out at said acquisition step" (0057, vector S…generated for each program by averaging attribute vectors) "as said information on said content" (0057, attribute) "and on the basis of a condition owned by said content; and" (0007 page 2 line 25-26, attribute information assigned to digital contents)

"an association step of associating"(0074, relationship) "said weight information" (page 8, intensities) "extracted in a process carried out at said extraction step" (page 8 operation in equation 5 is performed) "with said attribute information generated in a process carried out at said attribute-information generation step." (page 6, vector A)

Claim 12 :

In regards "A computer-readable medium encoded with a computer-program to be executed by a computer to carry out processing for generating attribute information of a content on the basis of information on said content, said processing comprising:", Yoshida discloses the following claimed limitations:

"an acquisition step of acquiring" (figure 1 element 10 and 3) "said information" (0052, attribute) "on said content;" (0052, program)

"an attribute-information generation step of" (figure 1) "generating said attribute information" (page 6 vector A) "including a plurality of items" (0007, page 2 lines 25-26, elements; page 6 vector A) "on the basis of said information acquired in a process carried out at said acquisition step" (0007 page 2 line 25-26, attribute information) "as said information on said content;" (0007 page 2 line 25-26, attribute information assigned to digital contents)

"an extraction step of extracting" (page 8, operation in equation 5 is performed) "weight information prescribing a degree of contribution given by each of said items" (page 8 equation 4; page 6 0052 intensities) "for computing of a degree of similarity" (page 8 equation 5) "between said attribute information" (page 6 vector A) "and predetermined favorite information of said user " (page 6 vector S) "on the basis of information acquired in said process carried out at said acquisition step" (0057, vector S…generated for each program by averaging attribute vectors) "as said information on said content" (0057, attribute) "and on the basis of a condition owned by said content; and" (0007 page 2 line 25-26, attribute information assigned to digital contents)

"an association step of associating"(0074, relationship) "said weight information" (page 8, intensities) "extracted in a process carried out at said extraction step" (page 8 operation in equation 5 is performed) "with said attribute information generated in a process carried out at said attribute-information generation step." (page 6, vector A)

Claim 14 :

In regards to "An information-processing apparatus for carrying out processing to select a content matching a favorite of a user, comprising:", Yoshida discloses the following claimed limitations:

"acquisition means for acquiring information including a plurality of items to serve as attribute information of said content;"

"acquisition means for acquiring information including a plurality of items to serve" (figure 1 element 10 and 3) "as attribute information" (0052, attribute) "of said content" (0052, program)

"storage means for storing information including a plurality of said items to serve as favorite information of said user; and" (page 6 equations 1 and 2, vector A and S)

"recommendation-information generation means for generating recommendation information"(0074-0077) "revealing a content matching a favorite of said user by computing a degree of similarity" (page 8, equation 5) "between information stored in said storage means as said favorite information of said user" (page 6, vector S) "and said attribute information acquired by said acquisition means through application of predetermined weight information," (page 6 vector A) "wherein said weight information prescribes a degree of contribution given by each of said items to" (page 6, 0054) "for computation of said degree of similarity" (page 8, equation 5) "between said attribute information" (page 6, vector A) "and said favorite information of said user." (page 6, vector S)

Claim 15 :

Yoshida further discloses "An information-processing apparatus according to claim 14, wherein said acquisition means acquires also said weight information besides said attribute information of said content and" (0054)"said recommendation-information generation means generates said recommendation information by comparison of said attribute information of said content with

said favorite information by using said weight information. "(page 8 equation 5)

Claim 16 :

Yoshida further discloses "An information-processing apparatus according to claim 14, further comprising:

operation-history acquisition means for acquiring a history of operations carried out by said user;" (0057)

"favorite-information generation means for generating favorite information of said user on the basis of an operation history acquired by said operation-history acquisition means as said history of operations carried out by said user; and" (0057, vector S can be generated for each selected program by averaging attribute vectors A1-A50)

"weight-information generation means for" (page 7, equation 3) "generating said weight information" (page 6 equation 2, vector S) "on the basis of said favorite information generated by said favorite-information generation means," (page 6, equation 1, vector A)

"wherein said recommendation-information generation means generates said recommendation information" (0074-0077) "through comparison of said favorite information with said attribute information by using said weight information generated by said weight-information generation means." (page 8, equation 5)

Claim 17 :

Yoshida further discloses "An information-processing apparatus according to claim 14, wherein said weight information is information revealing a favorite preferred by said user as a

characteristic favorite, which is used for selecting a specific piece among pieces of said attribute information of said content, rather than a generally preferred favorite." (0075)

Claim 18 :

Yoshida further discloses "An information-processing apparatus according to claim 14, wherein said weight information is information revealing an item of importance to said user among items composing said attribute information of said content."(0075)

Claim 19 :

Yoshida further discloses "An information-processing apparatus according to claim 14, wherein said weight information is information revealing an item indicating a content liked by said user among items composing said attribute information of said content."(0075)

Claim 20 :

Yoshida further discloses "An information-processing apparatus according to claim 14, wherein said weight information is information revealing an item indicating a content disliked by said user among items composing said attribute information of said content." (0077)

Claim 21 :

Yoshida further discloses "An information-processing apparatus according to claim 14, further comprising operation input means for receiving an operation input from said user, wherein said weight information is set in accordance with an operation input entered by said user to said

operation input means. "(0057)

Claim 22 :

In regards to "An information-processing method for an information-processing apparatus which carries out processing to select a content matching a favorite of a user, said information-processing method comprising:" Yoshida discloses the following limitations:

"an acquisition step of acquiring information" (figure 1 element 10 and 3) "of setting weight information prescribing a degree of contribution" (page 8 equation 4)" for computing of a degree of similarity" (page 8 equation 5) "between information composed of a plurality of items to serve as attribute information associated with said content" (page 6 vector A) "and information composed of a plurality of items to serve as predetermined favorite information associated with said user where said contribution is contribution given by each of said items;"(page 6 vector S; 0057, vector S…generated for each program by averaging attribute vectors)

"a computation step of computing a degree of similarity" (page 8 operation in equation 5 is performed) "between said attribute information" (page 6 vector A) "and said favorite information on the basis of information" (page 6 vector S)" acquired in a process carried out at said acquisition step as said information of setting said weight information; and" (figure 1 element 10 and 3)

"a recommendation-information generation step" (page 8, determining whether to record; 0073-0078 case 1, 2, 3) "of generating recommendation information" (case) "revealing a content

matching a favorite of said user through use of a computation result obtained in a process carried out at said computation step." (0073-0078)

Claim 23 :

In regards to "A computer-readable medium encoded with a computer-program to be executed by a computer to carry out processing to select a content matching a favorite of the user, said processing comprising:", Yoshida discloses the following claimed limitations:

"an acquisition step of acquiring information" (figure 1 element 10 and 3) "of setting weight information prescribing a degree" (page 8 equation 4)" for computing of a degree of similarity" (page 8 equation 5) "between information composed of a plurality of items to serve as attribute information associated with said content" (page 6 vector A) "and information composed of a plurality of items to serve as predetermined favorite information associated with said user where said contribution is contribution given by each of said items;"(page 6 vector S; 0057, vector S…generated for each program by averaging attribute vectors)

"a computation step of computing a degree of similarity" (page 8 operation in equation 5 is performed) "between said attribute information" (page 6 vector A) "and said favorite information on the basis of information" (page 6 vector S)" acquired in a process carried out at said acquisition step as said information of setting said weight information; and" (figure 1 element 10 and 3)

"a recommendation-information generation step" (page 8, determining whether to record; 0073-0078 case 1, 2, 3) "of generating recommendation information" (case) "revealing a content

matching a favorite of said user through use of a computation result obtained in a process carried out at said computation step." (0073-0078)

Claim 25 :

In regards to "An information-processing system comprising a first information-processing apparatus for generating attribute information of a content on the basis of information on said content" (figure 1 element 2) and a second information-processing apparatus for carrying out processing to select said content matching a favorite of a user on the basis of information received from said first information-processing apparatus as said attribute information of said content, " (figure 1 element 12), Yoshida discloses,

"said first information-processing apparatus comprising:" (figure 1 element 2)

"first acquisition means for acquiring said information on said content;" (page 8, 0066, equation 4)

"attribute-information generation means for generating said attribute information" (figure 1 element 2) "including a plurality of items on the basis of information acquired by said first acquisition means as said information on said content;" (page 8 equation 4, vector A = (3, 1, .1, etc…))

"first storage means for" (page 6, vector A)"storing first weight information for items of said attribute information generated by said attribute-information generation means; and" (figure 1 element 2)

"transmission means for extracting a piece of said first weight information" (figure 1, broadcasting station; page 8, vector A) "matching a condition" (page 8 paragraphs 0073-0077,

cases 1-3) "owned by said content" (0074-0077, program) "from pieces of said first weight information" (page 8 equation 4, ,elements 3, 1, .1, etc..) "stored in said first storage means" (page 6, equation 1, vector A) ", associating said extracted first weight information with said attribute information" (0052, intensities of program attributes) "generated by said attribute-information generation means" (figure 1 element 2) "and transmitting said first weight information (page 6, intensities) and said attribute information," (page 6, vector A attributes)

"said second information-processing apparatus comprising:" (figure 1 element 12)

"second acquisition means for acquiring information including a plurality of items as said attribute information of said content and said first weight information;" (page 6, vector S; 0057)

"second storage means for" (page 6, vector S) "storing information including a plurality of said items to serve as favorite information of said user; and" (0056, user tastes)

"recommendation-information generation means" (figure 1 element 3)"for generating recommendation information revealing a content matching said favorite of said user"(page 4, paragraph 0039 lines 1-2; 0040) "by computing a degree of similarity" (page 8 equation 5) "between information stored in said second storage means as said favorite information of said user" (page 6, vector S) "and said attribute information" (page 6, a, a2, a3) "acquired by said second acquisition means" (page 6, vector S) "through application of at least either said first weight information or second weight information different from said first weight information," (0057, vectors A1 – A50)

"wherein said first weight information and said second weight information each prescribe a degree of contribution given by each of said items for computing said degree of

similarity" (page 8, equation 5) "between said attribute information" (page 6, vector A) "and said favorite information of said user." (page 6, vector S)

Claim 26 :

In regards to "An information-processing apparatus for carrying out processing to select a content matching a favorite of a user, comprising:", Yoshida discloses the following claimed limitations:

"an acquisition means for acquiring" (figure 1 element 10 and 3) "attribute information of" (0052, attribute) "said content;" (0052, program)

"bias-information generation means for generating," (page 8, 0074-0077) "on the basis of first information showing said favorite of said user" (page 6, vector A, intensities of program) "and second information showing a generally preferred favorite," (page 6, vector S, intensities of attribute attributes indicating user's taste) "third information revealing a bias of said favorite of said user as a bias with respect to said generally preferred favorite." (0075, case 1)

Claim 27 :

Yoshida discloses "An information-processing apparatus according to claim 26, wherein: said attribute information, said first information and said third information each comprise a plurality of items;" (0054) "and selection means further provided in said information-processing apparatus selects a content matching said favorite of said user by computation of a degree of similarity" (page 8, equation 5) "between said attribute information" (page 6, vector A) "and said first

information for each of said items through use of said third information" (page 8, equation 5)

Claim 28 :

Yoshida discloses "An information-processing apparatus according to claim 26, wherein: said first information and said second information each comprise a plurality of items;" (page 6, vector A and S) "and as said third information," (0054) "said bias-information generation means generates information" (0074-0077) "revealing said items each having a low degree of similarity between said first information and said second information." (0074)

Claim 29 :

Yoshida further discloses "An information-processing apparatus according to claim 26, further comprising: operation-history acquisition means for acquiring a history of operations carried out by said user;"(0057) "and favorite-information generation means for generating said first information on the basis of a history acquired by said operation-history acquisition means as said history of operations carried out by said user."(0057)

Claim 30 :

Yoshida further discloses "An information-processing apparatus according to claim 26, wherein said bias-information generation means generates said third information by: counting the number of contents," (0074-0077) "which said user selects from those pertaining to a predetermined group and views," (0079) "for each of predetermined items to result in a first value and using said first value as said first information;"(0079) "counting the number of all said contents

pertaining to said predetermined group for each of said predetermined items to result in a second value and using said second value as said second information;" (page 8 equation 5) "and normalizing said first value through use of said second value to result in said third information." (page 8 0073)

Claim 31 :

Yoshida further discloses "An information-processing apparatus according to claim 30, wherein said predetermined group of contents is a set of contents broadcasted or distributed during a predetermined period of time." (figure 1 element 2, broadcast station)

Claim 32 :

Yoshida further discloses "An information-processing apparatus according to claim 30, wherein said bias-information generation means generates said third information by: taking each of sets each consisting of contents as one of a plurality of said predetermined groups of contents" (page 8, equation 5 and 0074-077) "where said sets are broadcasted or distributed during different periods of times;" (0057, A1 and A5) "computing a plurality of said first"(page 6, vector A)" and second values for said predetermined groups of contents;" (page 6, vector B) "and normalizing each of said first values through use of said second values computed for the same group of contents as said first value as said second value corresponding to said first value to result in said third information." (0057, average; page 8, equation 5)

Claim 33 :

Yoshida further discloses "An information-processing apparatus according to claim 30, wherein each of said predetermined groups of contents is a set of contents broadcasted or distributed during a predetermined period of time." (figure 1, broadcast system)

Claim 34 :

Yoshida further discloses "An information-processing apparatus according to claim 26, wherein said first information is said attribute information associated with said content as information revealing an item indicating that said content is a favorite of said user." (0054)'

Claim 35 :

Yoshida further discloses "An information-processing apparatus according to claim 26, wherein said first information is said attribute information associated with said content as information revealing an item indicating that said content is disliked by said user." (0077)

Claim 36 :

In regards to "An information-processing method for an information-processing apparatus which carries out processing to select a content matching a favorite of a user, said information-processing method comprising:", Yoshida discloses

"a first acquisition step of acquiring first information showing said favorite of said user;" (page 6, equation 1; vector A, 0052, intensities of program attributes)

"a second acquisition step of acquiring second information showing a generally preferred favorite; and"(page 6, equation 2, vector S, 0056 intensities of attribute attributes indicating user taste)

"a bias-information generation step of generating" (page 8, 0074-0077) "third information revealing a bias of said favorite of said user as a bias with respect to said generally preferred favorite on the basis of said first information" (0075, case 1) "acquired in a process carried out at said first acquisition step and said second information acquired in a process carried out at said second acquisition step." (0067, operation in equation 5)

Claim 37 :

In regards to "A computer-readable recording medium encoded with a computer-program to be executed by a computer to carry out processing to select a content matching a favorite of the user, said processing comprising:", Yoshida discloses

"a first acquisition step of acquiring first information showing said favorite of said user;" (page 6, equation 1; vector A, 0052, intensities of program attributes)

"a second acquisition step of acquiring second information showing a generally preferred favorite; and"(page 6, equation 2, vector S, 0056 intensities of attribute attributes indicating user taste)

"a bias-information generation step of generating" (page 8, 0074-0077) "third information revealing a bias of said favorite of said user as a bias with respect to said generally preferred favorite on the basis of said first information" (0075, case 1) "acquired in a process

carried out at said first acquisition step and said second information acquired in a process carried out at said second acquisition step." (0067, operation in equation 5)

Response to Arguments

20. Applicant's arguments filed 6/22/09 have been fully considered but they are not persuasive. Applicant's primarily assert the following:

A. That Yoshida does not disclose "said first weight information prescribing a degree contribution given by each of said items for computing a degree of similarity between said attribute and predetermined favorite information of a user", and therefore claims 1, 11-12, 14, 22-23, and 25 are not disclosed. That this is because there is no weight information prescribing a degree of contribution given by each of the items disclosed or used in Yoshida. That the attribute vector A contains items which are ranked in intensity based on contents of the program. There is no need and no disclosure or suggestion in Yoshida to use weight information in computing a degree of similarity between the attribute information and predetermined favorite information of a user.

In response the examiner disagrees. Yoshida discloses the following on 0052-0054, 0056-0057, 0067, and 0077-0078.

> **[0052]** In this equation, a_1 through a_n are elements of the attribute vector A and indicate intensities of program attributes. The order of attribute items and the number of these items (n) are predetermined in the attribute vector A.
> **[0053]** A given program, say, a movie, is provided with the following attribute vector A which contains the following attribute items (a_1 through a_n). The order and the number of these items are predetermined. Each of these items is assigned a specific value. The thus prescribed attribute vector A is attached to the corresponding program for broadcasting. The order of attribute items is common to the digital broadcasting system 1. When another program is broadcast, that order is unchanged. Only values allocated to items change.

$$A = (5, 2, 1, -3, -4, ..., 0, 0, 8)$$

Attribute items

[0054]

Movie → 8

Drama → 0

Sports → 0

Artistic → -4

Musical → -3

Dramatic → 1

Horror → 2

Amusing → 5

$$S = (s_1, s_2, s_3, ..., s_n) \quad (2)$$

[0056] In this equation, s_1 through s_n are elements of the selection vector S and indicate intensities of attribute attributes indicating the user's taste. The order of attribute items and the number of these items (n) in the selection vector S are same as those for elements in the attribute vector. This selection vector S is defined for the filter 12 in the reception apparatus 3.

[0057] The selection vector S indicating the user's taste is generated, say, by averaging a plurality of programs reproduced by the user. For example, it is assumed that the user selected 50 replayed programs. In this case, the selection vector S can be generated for each selected program by averaging attribute vectors A1 through A50.

[0067] At this time, the following operation in equation (5) is performed for determining whether to record the program in the recording and reproduction medium 15.

$$P = \frac{A \cdot S}{|A||S|} = \frac{3*2.3 + 1.1*3.2*4*(-1.1).....+8*0.2}{\sqrt{3^3 + 1.1^2 + 4^2 + ...8^2}\ \sqrt{2.3^2 + 3.2^2 + (-1.1)^2 + ...+ 0.2^2}} \quad (5)$$

> **[0078]** The reception apparatus 3 sets the filter 12 so that the program is recorded under the condition of selection value P > 0.3, for example. Consequently, it is possible to record much interesting programs without recording less interesting, uninterested, or dislike programs.
> **[0079]** As mentioned above, the digital broadcasting system 1 uses the attribute information and the selection information expressed in vectors to select programs to be recorded, or reproduced according to values resulting from an inner product operation. Thus, it is possible to easily select digital contents matching users's taste and reflect the users's taste correctly.

In other words, Yoshida discloses the asserted limitation "said first weight information"(0054, intensities) "prescribing a degree contribution given by each of said items" (0052, intensities of program attributes) "for computing a degree of similarity" (page 8 equation 5, if p>.3 for example) "between said attribute" (vector A) "and predetermined favorite information of a user" (Vector S) is disclosed.

In regards to there is no weight information prescribing a degree of contribution given by each of the items disclosed or used in Yoshida. This is disagreed because an intensity of program attributes is weight information prescribing a degree of contribution given by each of said items. Where the items are the program attributes and the weight information prescribing a degree contribution given are the intensities.

In regards to there is no need and no disclosure or suggestion in Yoshida to use weight information in computing a degree of similarity between the attribute information and predetermined favorite information of a user. This is disagreed because vector A is weight information used in computing a degree of similarity (P) between the attribute information (vector A) and the predetermined favorite information of a user (vector S). That is, there is a need for Yoshida to use weight information because the degree of similarity (P) utilizes the attribute vector A, and P is a measure of similarity between A and S, such that P determines whether the program is or is not recorded.

B. That "first information showing said favorite of said user" is not disclosed, and therefore the limitations of claims 26, 36, and 37 is not disclosed. That vector A merely provides information as to a television program. That moreover, vector S merely provides information as to average attribute values of selected television programs. Yoshida is silent regarding information regarding showing a favorite of a user.

In regards to the claimed limitations, it is disagreed that Yoshida does not disclose the claimed limitation. The claim limitation states "first information showing said favorite of said user". Yoshida disclosed

[0052] In this equation, a_1 through a_n are elements of the attribute vector A and indicate intensities of program attributes. The order of attribute items and the number of these items (n) are predetermined in the attribute vector A.
[0053] A given program, say, a movie, is provided with the following attribute vector A which contains the following attribute items (a_1 through a_n). The order and the number of these items are predetermined. Each of these items is assigned a specific value. The thus prescribed attribute vector A is attached to the corresponding program for broadcasting. The order of attribute items is common to the digital broadcasting system 1. When another program is broadcast, that order is unchanged. Only values allocated to items change.

Yoshida further disclosed

$$S = (s_1, s_2, s_3, \ldots, s_n) \quad (2)$$

[0056] In this equation, s_1 through s_n are elements of the selection vector S and indicate intensities of attribute attributes indicating the user's taste. The order of attribute items and the number of these items (n) in the selection vector S are same as those for elements in the attribute vector. This selection vector S is defined for the filter 12 in the reception apparatus 3.
[0057] The selection vector S indicating the user's taste is generated, say, by averaging a plurality of programs reproduced by the user. For example, it is assumed that the user selected 50 replayed programs. In this case, the selection vector S can be generated for each selected program by averaging attribute vectors A1 through A50.

Vector A is "first information showing said favorite of said user" because the order of attribute items and the number of these items n in the selection vector S are the same as those for elements in the attribute vector A.

In other words, the attributes that S refers to are the same as that of the attributes of A. Vector A is therefore a first information showing said favorite information.

Yoshida therefore discloses the asserted "first information showing said favorite of said user" (page 6, vector A)

In regards to vector S merely provides information as to average attribute values of selected television programs, this is disagreed.

Vector S further indicates intensities of attribute attributes indicating the user's taste. Therefore Vector S discloses second information showing a generally preferred favorite because S indicates intensities of the attribute attributes according to user's taste.

The rejection is therefore maintained. Applicants are therefore advised to further amend the claim to more clearly distinguish them from the cited references.

Conclusion

21. The prior art made of record listed on pto-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PHAM whose telephone number is (571)272-3924. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. P./
Examiner, Art Unit 2167

/John R. Cottingham/
Supervisory Patent Examiner, Art Unit 2167